a first dispersion compensating fiber traversed by said WDM signal, said first dispersion compensating fiber pumped with pump energy to induce Raman amplification of said WDM signal; and

a second dispersion compensating fiber ~~traversed by said WDM signal after amplification in~~ in cascade with said first dispersion compensating fiber, ~~said second dispersion compensating fiber pumped with pump energy to induce Raman amplification of said WDM signal;~~ and

wherein said first dispersion compensating fiber has a fixed length and said second dispersion compensating fiber has a variable length.

2. (Original) The apparatus of claim 1 further comprising a gain-flattening filter connected between said first dispersion compensating fiber and said second dispersion compensating fiber.

3. (Original) The apparatus of claim 1 further comprising an attenuator connected between said first dispersion compensating fiber and said second dispersion compensating fiber.

4. (Original) The apparatus of claim 1 further comprising a power control loop that performs power measurements on output of said second dispersion compensating fiber and adjusts a power level of pump energy directed to at least one of said first dispersion compensating fiber and said second dispersion compensating fiber.

5. **(Amended)** The apparatus of claim ~~1~~ 26 further comprising a first laser pump providing pump energy on a first wavelength to said first dispersion compensating fiber and said second dispersion compensating fiber.

6. (Original) The apparatus of claim 5 further comprising a second laser pump providing pump energy on a second wavelength to said first dispersion compensating fiber and said second dispersion compensating fiber.

7. (Original) The apparatus of claim 5 wherein said pump energy provided by said first laser pump traverses said first dispersion compensating fiber before entering said second dispersion compensating fiber.

8. (Original) The apparatus of claim 5 wherein said pump energy provided by said first laser pump traverses said second dispersion compensating fiber before entering said first dispersion compensating fiber via a Bragg fiber grating that reflects optical energy at said first wavelength and transmits other optical energy.

Cont'd

9. (**Amended**) In an optical communication system, a method for compensating for chromatic dispersion in an optical signal, said method comprising:

passing said optical signal through a first dispersion compensating fiber and then through a second dispersion compensating fiber;

pumping said first dispersion compensating fiber with pump energy to induce Raman amplification of said optical signal therein; and

pumping said second dispersion compensating fiber with pump energy to induce Raman amplification of said optical signal therein; and

wherein said first dispersion compensating fiber has a fixed length and said second dispersion compensating fiber has a variable length.

10. (Original) The method of claim 9 further comprising filtering said optical signal between said first dispersion compensating fiber and said second dispersion compensating fiber for equalization of spectral content of said optical signal.

11. (Original) The method of claim 9 further comprising attenuating said optical signal between said first dispersion compensating fiber and said second dispersion compensating fiber.

12. (Original) The method of claim 9 further comprising:

performing power measurements on output of said second dispersion compensating fiber; and

adjusting a power level of pump energy directed to at least one of said first dispersion compensating fiber and said second dispersion compensating fiber in response to said power measurements.

13. (Original) The method of claim 9 further comprising employing a first laser pump providing pump energy on a first wavelength to said first dispersion compensating fiber and said second dispersion compensating fiber.

14. (Original) The method of claim 13 further comprising employing a second laser pump providing pump energy on a second wavelength to said first dispersion compensating fiber and said second dispersion compensating fiber.

15. (Original) The method of claim 13 wherein said pump energy provided by said first laser pump traverses said first dispersion compensating fiber before entering said second dispersion compensating fiber.

16. (Original) The method of claim 13 wherein said pump energy provided by said first laser pump traverses said second dispersion compensating fiber before entering said first dispersion compensating fiber via a Bragg fiber grating that reflects optical energy at said first wavelength and transmits other optical energy.

17. (**Amended**) In an optical communication system, apparatus for compensating for chromatic dispersion in an optical signal, said method comprising:

means for passing said optical signal through a first dispersion compensating fiber and then through a second dispersion compensating fiber;

means for pumping said first dispersion compensating fiber with pump energy to induce Raman amplification of said optical signal therein; and

means for pumping said second dispersion compensating fiber with pump energy to induce Raman amplification of said optical signal therein; and

wherein said first dispersion compensating fiber has a fixed length and said second dispersion compensating fiber has a variable length.

18. (Original) The apparatus of claim 17 further comprising means for filtering said optical signal between said first dispersion compensating fiber and said second dispersion compensating fiber for equalization of spectral content of said optical signal.

19. (Original) The apparatus of claim 17 further comprising means for attenuating said optical signal between said first dispersion compensating fiber and said second dispersion compensating fiber.

20. (Original) The apparatus of claim 17 further comprising:

means for performing power measurements on output of said second dispersion compensating fiber; and

means for adjusting a power level of pump energy directed to at least one of said first dispersion compensating fiber and said second dispersion compensating fiber in response to said power measurements.

21. (Original) The apparatus of claim 17 further comprising means for employing a first laser pump providing pump energy on a first wavelength to said first dispersion compensating fiber and said second dispersion compensating fiber.

22. (Original) The apparatus of claim 21 further comprising means for employing a second laser pump providing pump energy on a second wavelength to said first dispersion compensating fiber and said second dispersion compensating fiber.

23. (Original) The apparatus of claim 21 wherein said pump energy provided by said first laser pump traverses said first dispersion compensating fiber before entering said second dispersion compensating fiber.

24. (Original) The apparatus of claim 21 wherein said pump energy provided by said first laser pump traverses said second dispersion compensating fiber before entering said first dispersion compensating fiber via a Bragg fiber grating that reflects optical energy at said first wavelength and transmits other optical energy.

Please add new claims 25 & 26 as follows:

25. (New) The apparatus of claim 1 wherein said second dispersion compensating fiber is pumped with pump energy to induce Raman amplification of said WDM signal.

26. (New) The apparatus of claim 25 wherein said WDM signal traverses said first dispersion compensating fiber prior to said second dispersion compensating fiber.